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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER
	5

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)
	09/317,986	YAMANAKA ET AL
	Examiner	Art Unit
	Christopher C. Pratt	1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 November 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) *11-17* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

15)☒ Notice of References Cited (PTO-892)
16)☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4*.
18)☐ Interview Summary (PTO-413) Paper No(s). _____.
19)☐ Notice of Informal Patent Application (PTO-152)
20)☐ Other.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

   I. Claims 1-10, drawn to a non-woven fabric, classified in class 442, subclass 400.

   II. Claims 11-17, drawn to a method for producing a non-woven fabric, classified in class 264, subclass various.

2. The inventions are distinct, each from the other because of the following reasons:

3. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by another process comprising casting instead of extruding.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Peter Olexy on 1/12/01 a provisional election was made without traverse to prosecute the invention of group I, claims 1-10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because of the preamble "non-woven fabric produced from." The wording of this preamble renders the scope of the claim indefinite. The words "produced from" should be replaced with comprising or consisting, as appropriate. For the purposes of examination the claim language will be interpreted by the examiner to mean comprising.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukata (4454189).

Fukata's patent is concerned with the creation of meltblown nonwoven fabrics comprising polyarylene sulfide fibers (abstract). Said fabric having a non-Newtonian coefficient anticipating applicant's claimed coefficient (col. 4, lines 8-11). Said fibers

crosslinked and branched (col. 3, lines 65-68). Said fibers having an average fiber diameter anticipating applicant's claimed diameter (col. 3, lines 5-7).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 3, and 5 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Harwood et al (6130292).

Harwood's patent is concerned with the creation of meltblown nonwoven fabrics comprising polyarlyene sulfide (abstract). Said nonwoven fabric having a fiber diameter of 10 microns or less (col. 7, lines 58-64). Said polyarylene sulfide fibers are cross-linked (col. 10, lines 60-67). It is the examiner's position that Harwood's fibers inherently have a non-Newtonian coefficient of 1.05-1.20, because said fibers are subjected to a similar grafting process as applicant. In the alternative, if said fibers do not have a non-Newtonian coefficient of 1.05-1.20, than it would have been obvious to one having ordinary skill in the art to utilize a non-Newtonian coefficient of 1.05-1.20, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). The skilled artisan would have been motivated to select such a value by the reasoned expectation of varying the shear stress and rate of shear. Furthermore,

Harwood teaches that any suitable polyarylene sulfide can be used (col. 3, lines 40-42) at any suitable grade (col. 4, lines 5-7).

7. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ikeda et al (4950529).

Ikeda's patent is concerned with the creation of a meltblown nonwoven fabric comprising polyarylene sulfide fibers. Said fibers having a diameter anticipating applicant's claimed diameter (abstract). It is the examiner's position that Ikeda's fibers inherently have a non-Newtonian coefficient of 1.05-1.20. In the alternative it would have been obvious to one having ordinary skill in the art to utilize a non-Newtonian coefficient of 1.05-1.20, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). The skilled artisan would have been motivated to select such a value by the reasoned expectation of varying the shear stress and rate of shear.

8. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Auerbach (EP 709499).

Auerbach's patent is concerned with the creation of a meltblown nonwoven fabric comprising polyarylene sulfide fibers. Said fibers having a diameter anticipating applicant's claimed diameter. It is the examiner's position that Auerbach's fibers inherently have a non-Newtonian coefficient of 1.05-1.20. In the alternative it would have been obvious to one having ordinary skill in the art to utilize a non-Newtonian

coefficient of 1.05-1.20, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). The skilled artisan would have been motivated to select such a value by the reasoned expectation of varying the shear stress and rate of shear.

9. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harwood et al (6130292), Ikeda et al (4950529), or Auerbach (EP 709499) each in view of Fukata (4454189).

If Harwood, Ikeda, and Auerbach do not inherently have a non-Newtonian coefficient of 1.05-1.2 then it would have been obvious to the skilled artisan to utilize said coefficient based on the teachings of Fukata. Such a modification would have been motivated by the reasoned expectation of utilizing a polymer, which is superior in spinnability and less liable to gelation.

10. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harwood et al (6130292), Ikeda et al (4950529), or Auerbach (EP 709499) each in view of Fukata (4454189), further in view of Senga (EP 353717).

Claims 6-10 are drawn to processes of making said polyarylene sulfide. Senga teaches elements of said process. It would have been obvious to utilize Senga's method motivated by the reasoned expectation of creating a fiber having superior mechanical strength, heat resistance, long-term stability, and chemical resistance. Furthermore, it is the examiner's position that the polyarylene sulfide fibers of Harwood

et al (6130292), Ikeda et al (4950529), or Auerbach (EP 709499) each in view of Fukata (4454189) is identical to or only slightly different than the fibers prepared by the method of applicant. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious variant from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). Harwood et al (6130292), Ikeda et al (4950529), or Auerbach (EP 709499) each in view of Fukata (4454189) either anticipates or strongly suggests the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with Harwood et al (6130292), Ikeda et al (4950529), or Auerbach (EP 709499) each in view of Fukata (4454189).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Pratt whose telephone number is 703-305-6559. The examiner can normally be reached on Monday - Friday from 7 am to 4 pm.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2351.

Christopher C. Pratt
January 17, 2001

TERREL MORRIS
SUPERVISORY PATENT EXAMINER
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